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(54) LICENSE PLATE RECOGNIZING DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To allow even a general-purpose arithmetic unit to cut out a license plate area at a high speed by performing horizontal second-order differential processing of a reduced vehicle image, executing luminance conversion processing, performing area division in a thin strip and calculating luminance projection in each area.

SOLUTION: A vehicle image including license plate is digitally converted and fetched and character segmentation processing is performed to the image. The fetched vehicle image is reduced to 1/2 vertically and horizontally respectively (S31). Next, the reduced image is subjected to horizontal second-order differentiation (S32), the acquired horizontal second-order differential image undergoes luminance conversion processing and an edge image is produced (S33). Next, the edge image is subjected to area division in a thin strip shape, horizontal luminance projection in every line is calculated about each area and the range of a vertical license plate is set (S34). Next, vertical luminance projection in every line is calculated about the range that combines each thin strip-shaped area and adjacent thin strip-shaped areas on the left and right sides of it and the range of a horizontal license plate is set (S35).

